FIRE ALARM ACCEPTANCE TEST PROCEDURES







Introduction

This manual is designed to provide you, the contractor, owner or design professional with a step-by-step guide to our process, beginning with plan submission and ending with the final approval signature.

Additional copies of this publication may be obtained from:

City of Columbus Department of Building and Zoning Services 757 Carolyn Avenue Columbus, Ohio 43224

On-line at: http://bzs.columbus.gov/doclibrary aspx?id=19406



City of Columbus Michael B. Coleman, Mayor

Department of Building and Zoning Services Tracie Davies, Director

Chief Building Official Keith E. Wagenknecht, AIA

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STEP 1: Fire Alarm Contractor Registration and Plan Submission

All fire alarm contractors must be licensed with the state of Ohio and registered with the City of Columbus Department of Building and Zoning Services (BZS). Instructions for registration and plan submittal for Fire Alarm Permits are available at the BZS Customer Service counter and on-line at:

http://bzs.columbus.gov/doclibrary aspx?id=19406

Please see Appendixes 'A', 'B' and 'C':

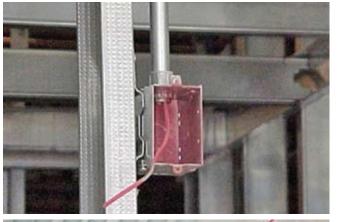
- BZS Fire Alarm Permit Application with Instructions and Fee Schedule
- Columbus Fire Department Fire Alarm Permit Application
- CIC #24 Fire Protection System Document Submittals

For non-Fire Division related questions call:

Fees and Licensing/Cashier	(614) 645-6090
Status and Processing	(614) 645-7562
Fire Suppression Plan Review	(614) 645-7943
Fire Alarm Plan Review	(614) 645-5699
Inspection:	
Fire Alarm	(614) 645-6371
Electrical	(614) 645-6076
HVAC	(614) 645-3270

For Fire Division related questions call:

Fire Prevention Bureau (614) 645-7641







STEP 2: System Installation Phase

As the fire alarm system is being installed, specific inspections must be performed.

The following information will outline these procedures.

Please see Appendix "D" – CIC #3: Lead Time For Joint Inspections.









A. At the stage the contractor has installed the alarm device boxes and wiring in the rough walls (e.g. pull stations, horns, strobes, etc.) it will be necessary that these installations be inspected by the Electrical Inspector.

Inspection can be scheduled by calling the Electrical Inspection Line at 645-8265. The type of inspection is "Fire Alarm - Rough Walls".

The items inspected will include but not be limited to:

- System components installed according to approved plans
- System components proper for this type of installation
- Device boxes in the proper location to meet all applicable codes and ADAAG quidelines

NOTE:

Inspector will indicate approval on the Building Permit under 'Fire Alarm – Rough

Please see Appendix 'F': Sample Building Permit





B. At the stage that the contractor has installed the alarm device boxes and wiring in the rough ceiling (e.g. smoke alarms, heat detectors, etc.) it will be necessary that these installations be inspected by the Electrical Inspector.

Inspection can be scheduled by calling the Electrical Inspection Line at (614) 645-8265. The type of inspection is "Fire Alarm-Rough Ceiling."

The items inspected will include but not be limited to:

- System components installed according to approved plans?
- System components proper for this type of installation?

NOTE:

Inspector will indicate approval on the Building Permit under 'Fire Alarm - Rough

Please see Appendix 'F': Sample Building Permit









STEP 3: System Completion Phase

At this stage the installation contractor(s) are ready to perform a 100% pretest of all system components according to the guidelines set forth in NFPA 72.

As the test is performed, the NFPA 72 "Record of Completion" forms are to be filled out completely by the licensed installation contractor(s).

Please see Appendix 'E': NFPA 72 Record of Completion Form



A return call will be made by Inspection Clerical Staff within two (2) working days upon the receipt of fax to confirm date, time, etc.

STEP 4: Specialty Alarm Systems

Specialty systems must be tested and approved prior to the final fire alarm witness test. To schedule inspection, fax Fire Protection Request Form with a completed NFPA 72 "Record of Completion" Form to Inspection, (614) 645-8358.

NOTE:

Please see Appendix 'D': CIC#3: Lead Time For Joint Inspections – Fire Alarm and Fire Suppression.

Building and Zoning Services personnel will notify the Columbus Division of Fire of the date and time of tests conducted. Contractors must notify the Columbus Division of Fire of all cancellations scheduled after normal business hours at (614) 645-7641.





A. Smoke Detector for Air Distribution Systems

To schedule inspection, fax Fire Protection Request Form (Please see Appendix 'G') to BZS Inspection, (614) 645-8358.

Inspectors needed:

- 1. HVAC.
- Fire Official

Testing procedures:

100% test of all device activation in accordance with the manufacturers specifications and all applicable code provisions.

The items inspected will include but not be limited to:

- Inspection of installation as per the approved plans, manufacturers specifications, and all applicable codes.
- Verification of unit shutdown upon activation or switch to smoke control mode of operation.
- Verification of system circuit trouble.

B. Smoke Dampers or Combination of Fire/ Smoke Dampers

To schedule inspection, fax Fire Protection Request Form (Appendix 'G') to BZS Inspection, (614) 645-8358.

Inspectors needed:

- 1. HVAC
- 2. Fire Official

Testing procedures:

100% test of all device activation in accordance with the manufacturers specifications and all applicable code provisions.

The items inspected will include but not be limited to:

- Inspection of installation as per the approved plans, manufacturers specifications, and all applicable codes.
- Verification of unit operation upon activation of the system
- Verification of damper operation upon activation.





C. Fire Pumps

To schedule inspection fax Fire Protection Request Form to Inspection, (614) 645-8358.

Inspectors needed:

- 1. Electric
- 2. Fire Official

Testing procedures:

100% test of all device activation in accordance with the manufacturers specifications.

D. Smoke Control Systems

To schedule inspection fax Fire Protection Request Form with a completed Record of Completion Form to Inspection, (614) 645-8358.

Inspectors needed:

- 1. HVAC
- 2. Fire Official

Testing procedures:

100% test of all devices, equipment, components and sequences in accordance with the manufacturer's specifications and all applicable code provisions.









E. Dry Chemical, Wet Chemical, Clean Agent Systems and Carbon Dioxide Systems.

To schedule inspection fax Fire Protection Request Form with a completed Record of Completion Form to Inspection, (614) 645-8358.

Inspectors needed:

- 1. HVAC
- 2. Fire Official

Testing procedures:

100% test of all device activation in accordance with the manufacturers specifications and all applicable code provisions.

Items inspected will include, but not be limited to:

 Inspection of installation as per the approved plans, manufacturer's specifications and all applicable code provisions.

STEP 5: Final Fire Alarm Acceptance Test

The rough fire alarm approval and the testing and approval of all specialty systems must be completed prior to scheduling the Final Fire Alarm Acceptance Test. Failure to do so will result in a failed test and loss of the Building and Fire Department inspection fees.

To schedule the Final Fire Alarm Acceptance Test, fax the Fire Protection Request Form with a completed NFPA 72 "Record of Completion" Form to Inspection, (614) 645-8358.

NOTE:

Please see Appendix 'D': CIC#3: Lead Time For Joint Inspections – Fire Alarm and Fire Suppression.

A return call will be made by Inspection Clerical Staff within two (2) working days upon the receipt of fax to confirm date, time, etc.

Building and Zoning Services personnel will notify the Columbus Division of Fire of the date and time of tests conducted. Contractors must notify the Columbus Division of Fire of all cancellations scheduled after normal business hours at (614) 645-7641.

The Acceptance Test

The acceptance test will consist of a random inspection of device activation at a minimum of 10% of all devices (as determined by the inspector) except as otherwise noted on in

this manual. The inspection must include at least one device for each system component (i.e., elevator recall, smoke detector, hornstrobe, etc.)









Fire Alarm Acceptance Test Procedures

Manual Fire Alarm Systems

Inspectors needed:

- 1. Structural
- 2. Fire Official

Testing procedures:

Minimum 10% random test of all devices for circuit trouble and 100% for audibility.

Smoke Detection Systems

(excluding detectors for air distribution systems)

Inspectors needed:

- 1. Structural
- 2. Fire Official

Testing procedures:

Minimum 10% random test of all devices in accordance with the manufacturers' recommended testing method for alarm and circuit trouble.

Elevator Recall Activation

Inspectors needed:

- 1. Structural
- 2. Fire Official

Testing procedures:

The designated and alternate floor levels as well as the elevator machine room must be checked. The remainder of the test can be a random check of devices.







Fire Suppression Systems

(riser flow and tamper devices)

Inspectors needed:

- 1. Structural
- 2. Fire Official

Testing procedures:

100% test of riser/standpipe systems for flow alarm and tamper. Inspectors will verify the required residual pressure at system riser for all new systems. Post indicator valves and system circuit trouble shall be checked.

Special locking, egress control and electric strike devices

(i.e., hold-open devices, magnetic locks etc.)

Inspectors needed:

- 1. Structural
- 2. Fire Official

Testing procedures:

100% test of all device activation in accordance with the manufacturers specifications.

Emergency Egress Requirements

Inspectors needed:

- 1. Structural
- 2. Fire Official

Testing procedures:

100% test of all egress components including signage, lighting, and path of travel.





Fire Shutters / Rolling Fire Doors Activation

Inspectors needed:

- 1. Structural
- 2. Fire Official

Testing procedures:

100% test of all device activation in accordance with the manufacturers specifications.

Fire Alarm System Monitoring

(including sub and booster panels/ Automatic Telephone-dialing Devices)

Inspectors needed:

- 1. Structural
- 2. Fire Official

Testing procedures:

100% test of all device activation in accordance with the manufacturers specifications.

NFPA 72 "Record of Completion" forms are to be filled out by a licensed alarm contractor and placed at the fire alarm panel prior to the final inspection.



STEP 6: Final Approval

The Structural Inspector will complete a Fire Alarm Acceptance Test Form and will indicate approval on the Building Permit under "Fire Alarm – Final" (See Appendix Item 'F')

Appendix A—Fire Alarm Permit Application (page 1)

				App. No.:	
Fire Aları City of Colum	m Permit Appl nbus. Ohio • Depa	lication rtment of Development • Bui	ilding Se	rvices Division	
757 Carolyn	Avenue, Columbu	s, Ohio 43224 • Phone : 614-	645-743	3 • Fax: 614-645-0082 • <u>ww</u>	w.columbus.gov
ALL FEES	ARE NON-RE	FUNDABLE - Please typ	e or pri	int all information	
					Date:
Revision to Fire	Alarm Permit	t #:		Bldg. Permit #:	
Type of Permit:					
Residential:		ommercial:		Type of Work:	_
☐ 1 Family Dwe	lling	4 or more Family Dwelling; # of Units:	;	☐ Addition to Building ☐ New Construction	Replace/ Repair Existing
3 Family Dwe	lling	Commercial Structure			arm Permit #:
Additional Inspect	ions Requested	l w/ this Application: #	ŧ		
_	_			_	
scope of work					
Job Site Informatio	n:				
Certified Addr	ess	Zi	ip	Working in Unit #/	Tenant's Name(s)
				Suite/ Flr.	
Tax District/ Pa	arcel	Cost of Construction			
Are there any active Bu	ilding Services Di	vision Violation Orders on th	nis Prope	rty?	
Are there any active Ne	ighborhood Servic	es Division Violation Orders	on this l	Property? \(\text{V} \) \(\text{N} \)	
Are there any active ive	ignoofficod Scrvic	es Division violation Orders	on uns	rioperty: 1 1 1	
Contractor:					
State Company	Number	Contractor Name		State Inc	taller Number
State Company	rumoci	Contractor Ivanic		State IIIs	taner ivanioer
Installer Name		Street Address			City, State, Zip
Telephone Nun	nber	Fax Number		Email Addres	SS
Signature of C	ertified Installer	or Authorized Signer		Print or Type Name	
			•		
		Incomplete information will			ıl.
		stions regarding this form and e make checks payable the C			
		Page 1 of 2			App Rev. 12/09: hrj

Appendix A—Fire Alarm Permit Application (page 2)

City of Colu 757 Carolyn	m Permit Application mbus, Ohio • Department o Avenue, Columbus, Ohio 4	f Development • 3224 • Phone : 6	Building Services Division 14-645-7433 • Fax : 614-645-0082 • <u>ww</u>	vw.columbus.gov	
ALL FEES	S ARE NON-REFUNDA	BLE • Please 1	ype or print all information		
Fire Alai	rm Devices	No. of Devices	Mechanical Devices	No. of Devices	
	Pull Stations	1,00 01 2 0 11005	Smoke Control System		
A/V	7 Units		Duct Detectors		
Smoke/ Ho	eat Detectors		Smoke Dampers		
Elevat	or Recall		Hood/Suppression Alarm		
Electri	ic Strikes		Clean Agent/ Suppression Alarm	,	
Egress Cor	ntrol Devices		Other:		
Hold Op	en Devices				
	Shutter		Te	otal:	
	Flow Alarm		_	rtai.	
	amper Devices				
Other:					
Total:					
Property Owner of F	Record:				
Name		Street Address		City, State, Zip	
Telephone Numl	har E	ax Number	E-Mail Address		
If Payment will be m	nade through a SOFT A	ccount, please	provide the following: SOFT Account Authorized S	Signature	
The following Decuments	s must be submitted with this	Applications	** Applicant has the option to buy additional inspections at the time		
_	te fire alarm drawings that incl		permit issuance for \$150 per ins		
 To-scale floor plans 	s with room uses		Fire Alarm Permit Fees for Columbus Division of Fire:		
 Include a description operation, and cut-s 	on of the system, sequence of sheets of equipment		Automatic Fire Alarm Systems: For 1-25 Devices: \$150.00		
	r the seal or shop drawings app		For 25+ Devices: \$175 + \$1.60 per addi	tional device over 25	
	red Architect/ Engineer respon stem, or Ohio Fire Alarm Desi		Manual Fire Alarm Systems: For 1-10 Devices: \$150.00 For 11+ Devices: \$175 + \$1.50 per addi	tional device over 10	
One separate set of dra Division of Fire, Fire F	awings as described above for Prevention Bureau.	the Columbus	For 11+ Devices: \$175 + \$1.50 per additional device over 10 NOTE: When a combination fire alarm system (includes both automatic & manual initiating devices) is being installed, the Manual Alarm System Fee		
Completed Division of	Fire Alarm/ Suppression Perm	it Application	will be applied.		
Fire Alarm Permit Fees 1	for Building Services:		** Retests of Failed Inspections: \$100 p	er Trip**	
Fire Alarm, Detection, Suppression & Activation Devices: Examination Fee for 1-9 devices: \$10 Examination Fee for 10 or more devices: \$200 + \$2.50 per additional device Inspection Fee: \$300 (Includes 2 one hour inspections) After Hours Inspection: \$450 (for first 2 hours); \$225 per hour over 2 hours		** One check can be presented with app Services and Division of Fire fees. **	lication for the combined Building		
			vill result in the rejection of this submitt	ral	

Please make checks payable the Columbus City Treasurer

Page 2 of 2

App Rev. 12/09: hrj

Appendix B — Fire Department Alarm Permit Application

CITY OF COLUMBUS

Columbus Division of Fire Fire Prevention Bureau 3639 Parsons Ave. Columbus, OH 43207 614-645-8673 614-645-3004 FAX



FIRE ALARM / SUPPRESSION PERMIT APPLICATION

TYPE OR PRINT ALL INFORMATION						
Fire Alarm / Suppression	Permit #			Check #		Amount
Job Title/Tenant's Name					Telephone	()
ADDRESS OF JOB						
Address						
City					State	Zip
CONTRACTOR						
Contractor					Telephone	()
Contact Name					Fax	()
Address		City			State	Zip
PROPERTY OWNER OF RE	CORD (If know	n)				
Address					Telephone	e ()
City		State	Zip		FAX	()
Indicate Number of Devices	to be Installed	or Altered:				
DETECTORS (Smoke/Heat) Area Smoke Duct Smoke	ALARMS (Audible/Visua		AL PULL ONS	Other (Flow Sw.	/Door Hlds/Etc	total devices
Indicate Number of Devices to be Installed or Altered:						
Sprinkler Heads			Inde (Wet	ependent S t or Dry Che	uppress Syste mical, Carbon l	ems Dioxide, Etc.)
Limited Area Sprinkler Head	s			Specify Type:		
Standpipes	# of	System				

- PLEASE NOTE: 1 inspection per plans review fee! Each sequential inspection will be at a cost of \$100.00
- CANCELLATIONS: You must notify the Fire Prevention Bureau Plans Review Section at 645-8673 prior to 8:00am (day of inspection) or a \$100.00 fee will be assessed.
- SEE PLANS REVIEW FEE SCHEDULE FOR PRICING INFORMATION.

If you have any questions regarding this form, please call (614) 645-8673. Incomplete information may result in rejection of submittal.

4/07

Appendix C — Fire Protection System Document Submittals (page 1)



City of Columbus Mayor Michael B. Coleman

Department of Development

Boyce Safford III, Director

Building Services Division 757 Carolyn Avenue Columbus, Ohio 43224-3218 (614) 645-8090 (614) 645-7840 FAX

July 1, 2009 (Revised 9/17/09)

Construction Industry Communication #24

From: Keith Wagenknecht, Chief Building Official
RE: Fire Protection System Document Submittals

Requirements: Section 105.3.1.4 of the 2007 Ohio building Code requires Fire Protection System Construction Documents be submitted under the signature of an individual certified under Section 378.105 of the Ohio Revised Code or bear the seal and signature of the design professional who prepared the construction documents.

Evidence of Responsibility: In accordance with Section 106.3.4 of the 2007 Ohio Building Code, Documents shall indicate the <u>sole person responsible</u> for the design and preparation of the construction documents. Documents submitted will no longer be acceptable by submitting drawings from the design professional and the remainder of the documents from the certified fire alarm designer.

Memorandum: Beginning August 1, 2009 Fire Alarm and Fire Suppression System Construction documents must be submitted with either the signature of the certified fire alarm designer or documents sealed and signed by the design professional. City of Columbus will no longer accept documents that have been reproduced from the design professional without their knowledge and authorization.

Co	nstruction documents required by Section 907.2 to be submitted include: Locations of alarm-initiating and notification appliances
	Alarm control and trouble signaling equipment
_	0 0 1 1
	Power connection
	Supervisory system connection
	Battery calculations
	Conductor type and sizes
	Voltage drop calculations
	Manufacturers, model numbers and listing information for equipment, devices
	and materials (catalog cuts)
	Details of ceiling height and construction
	Interface of fire safety control functions (sequence of operation)
	Symbols legend

Appendix C — Fire Protection System Document Submittals (page 2)

Licensed Fire Alarm contractors wishing to obtain rough inspections for their work prior to completion and submittal of required fire alarm shop drawings, catalog cuts, battery calculations etc., may submit design drawings prepared by a licensed design professional, showing the location of all fire alarm devices. Drawings and a fire alarm permit application must follow normal submittal process, meaning <u>four</u> (4) sets of the proposed work shall be submitted to Building Services, plus <u>one</u> (1) set and application for the Fire Prevention review. All customary fees are required to be paid up front. After plan review and approval, by both departments, has been obtained, the fire alarm permit will be issued and a rough inspection(s) for the work may be requested.

The fire alarm contractor shall submit completed documents for review and approval as required above. This submittal is a <u>revision to the approved</u> <u>documents</u> and the applicant shall pay the fee for revision in accordance with the fee schedule. Final approval of the fire alarm installation shall be based on the approved revised drawings including any changes required for full compliance for the fire alarm system as maybe noted or shown on the revised drawings.

mfinks/comm.edu.train/CIC #24 REVISED 9/17/09

Appendix D — CIC #3 Inspection Time (page 1)



Department of Development

Building Services Division

757 Carolyn Avenue Columbus, Ohio 43224-3218 (614) 645-7433 (614) 645-7840 FAX

February 2008

(Revised: July 2009)

Construction Industry Communication # 03

From: Keith Wagenknecht, Chief Building Official

Re: LEAD TIME FOR JOINT INSPECTIONS – FIRE ALARM AND FIRE SUPPRESSION

Requirements: Ohio Building Code Section 109.5 **Inspection Requests**: It shall be the duty of the owner's duly authorized agent to notify the building official when work is ready for inspection. Access to and means for inspection of such work shall be provided for any inspections that are required by this code.

Background: In an effort to minimize delays on the part of the contracting industry and possible removal of newly installed wall board, personnel from the Fire Prevention Bureau and the Building Services Division have held a series of meetings to coordinate the scheduling of their respective inspections. Acknowledging the fact that both the fire alarm and fire suppression systems must be inspected by both groups, a joint inspection with both parties present is the most efficient way to perform said inspections. Because the demand for these inspections is high and current personnel resources are limited, it becomes necessary to schedule these inspections with some lead-time involved. For this reason, the following policy has been put into effect.

Memorandum: Lead-time will allow both Fire and Building to check on the availability of inspectors, so that both inspectors can perform the inspection the same day. The following schedule will be used in scheduling inspections:

TYPE OF INSPECTION	ROUGH	FINAL	LEAD TIME DAY(S)*	INSPECTION REQUIRED
Fire Alarm	Х		4 PM DAY BEFORE	Electric
Fire Alarm Witness		Х	10 AM, 2 Days	Structural / Fire
F S Hydrostatic 200 psi 2 hrs		Х	10 AM, 2 Days	Structural / Fire
F S Hydrostatic Working Pressure		Х	10 AM, 2 Days	Structural / Fire
F S Hydrostatic air @ 40 psi 24 hrs		Х	10 AM, 2 Days	Structural / Fire @ start / Fire @ end
Fire Suppression	Х		10 AM, 2 Days	Structural / Fire
Fire Suppression		Х	4 PM DAY BEFORE	Structural
Fire Suppression - Limited Area	Х	Х	4 PM DAY BEFORE	Structural
Smoke Control System	Х		4 PM DAY BEFORE	HVAC
Smoke Control System Witness		Х	10 AM, 2 Days	HVAC / Fire
Smoke Duct Detectors	Х		4 PM DAY BEFORE	HVAC
Smoke Duct Detectors Witness		Х	10 AM, 2 Days	HVAC / Fire
Smoke Dampers	Х		4 PM DAY BEFORE	HVAC
Smoke Dampers Witness		Х	10 AM, 2 Days	HVAC / Fire
Wet Chemical Suppression	Х		4 PM DAY BEFORE	HVAC

Appendix D — CIC #3 Inspection Time (page 2)

Wet Chemical Suppression Witness		х	10 AM, 2 Days	HVAC / Fire
Clean Agent Suppression	×		4 PM DAY BEFORE	HVAC
Clean Agent Suppression Witness		х	10 AM, 2 Days	HVAC / Fire
Dry Chemical, Foam, Carbon Dioxide Systems	х		4 PM DAY BEFORE	HVAC
Dry Chemical, Foam, Carbon Dioxide Systems Witness		Х	10 AM, 2 Days	HVAC / Fire
Fire Alarm Witness for Mechanical Systems		Х	10 AM, 2 Days	HVAC / Fire
Emergency Generator	Х	Х	4 PM, 2-3 DAYS	Electric (Time test)
Fire Pump		Х	10 AM, 2 Days	Fire / Electric

^{*} Please be advised that due to scheduling and the availability of city inspectors, additional time maybe required to schedule your inspection. If your inspection is critical, please submit your request for inspection at least three (3) days prior to the date needed.

Appendix E — **NFPA Record of Completion** (page 1)

FIRE ALARM SYSTEM RECORD OF COMPLETION

To be completed by the system installation contractor at the time of system acceptance and approval.

Name of property:		
Occupancy type:		
Name of property repre	esentative:	
		E-mail:
Authority having juris	diction over this property:	
Phone:	Fax:	E-mail:
Service organization fo	r this equipment:	
		E-mail:
Location of as-built dra	wings:	Location of historical test reports:
Location of system ope	ration and maintenance manuals:	07 - 300 Printer (13) - Printer (14) Printer
A contract for test and	inspection in accordance with NFPA st	andards is in effect as of
Contracted testing com	pany:	
Phone:	Fax:	E-mail:
Contract expires:	Contract number:	Frequency of routine inspections:
3. TYPE OF FIRE ALAR	M SYSTEM OR SERVICE	
	rence of System Type:	
	eceiving alarm signals with phone nun	
Name of organization r		NW 5.65 N
1000		
Alarm:		Phone:
Alarm:		
Alarm: Supervisory: Trouble:		

Appendix E — NFPA Record of Completion (page 2)

3. TYPE OF FIRE ALARM SYSTEM OR SERVICE (continued)					
If Chapter 8, note the means of transmission from the protected premises to the central station: □ Digital alarm communicator □ McCulloh □ Multiplex □ 2-way radio □ 1-way radio	o 🗅 N/A				
If Chapter 9, note the type of connection: \Box Local energy \Box Shunt \Box N/A					
3.1 System Software					
Operating system (executive) software revision level:					
Site-specific software revision date: Revision completed by:					
4. SIGNALING LINE CIRCUITS					
Characteristics of signaling line circuits connected to this system (see NFPA 72, Table 6.6.1):					
Quantity: Style: Class:					
5. ALARM-INITIATING DEVICES AND CIRCUITS					
Characteristics of initiating device circuits connected to this system (see NFPA 72, Table 6.5):					
Quantity: Style: Class:					
Qualitity Style Class					
5.1 Manual Initiating Devices					
5.1.1 Manual Pull Stations Number of manual pull stations: Type of devices: □ Addressable □ Conventional □ Coded □ Transmitter □ N/A					
				5.2 Automatic Initiating Devices	
5.2.1 Area Smoke Detectors Number of smoke detectors:					
Type of coverage: \Box Complete area \Box Partial area \Box Nonrequired partial area \Box N/A					
Type of devices: $\ \square$ Addressable $\ \square$ Conventional $\ \square$ Coded $\ \square$ Transmitter $\ \square$ N/A					
Type of smoke detector sensing technology: \Box Ionization \Box Photoelectric					
5.2.2 Duct Smoke Detectors Number of duct smoke detectors:					
Type of coverage:					
Type of devices: $\ \square$ Addressable $\ \square$ Conventional $\ \square$ Coded $\ \square$ Transmitter $\ \square$ N/A					
Type of smoke detector sensing technology: \Box Ionization \Box Photoelectric					
5.2.3 Heat Detectors Number of heat detectors:					
Type of coverage: \Box Complete area \Box Partial area \Box Nonrequired partial area \Box N/A					
Type of devices: \Box Addressable \Box Conventional \Box Coded \Box Transmitter \Box N/A					
5.2.4 Sprinkler Waterflow Detectors Number of waterflow detectors:					
Type of devices $\ \square$ Addressable $\ \square$ Conventional $\ \square$ Coded $\ \square$ Transmitter $\ \square$ N/A					
5.2.5 Alarm Verification Number of devices subject to alarm verification:					
Alarm verification on this system is: Enabled Disabled Disabled Set for seconds					
© 2007 National Fire Protection Association	NFPA 72 (p. 2 of 5)				

Appendix E — NFPA Record of Completion (page 3)

٥.	6. SUPERVISORY SIGNAL-INITIATING DEVICES AND CIRCUITS						
	6.1 Sprinkler System	Number of valve supervisory switches:					
	Type of devices: \Box Addressable \Box Conventional \Box	Coded \Box Transmitter \Box N/A					
6.2 Fire Pump							
	Type of fire pump: Electric Diesel						
	Type of fire pump supervisory devices: Addressable Conventional Coded Transmitter N/A						
	Fire Pump Functions Supervised Fire pump power Fire pump running Fire pump phase reversal Selector switch not in auto						
	☐ Engine or control panel trouble ☐ Low fuel	imp phase reversar a selection switch not in auto					
	Other:						
	6.3 Engine-Driven Generator						
	Type of generator supervisory devices: Addressable	□ Conventional □ Coded □ Transmitter □ N/A					
	☐ Engine or control panel trouble ☐ Generator running	g 🚨 Selector switch not in auto 📮 Low fuel					
	Other:						
7.	. ANNUNCIATORS						
7.1 Annunciator 1							
	Type: \Box Addressable \Box Directory \Box Graphic \Box	N/A Location:					
	7.2 Annunciator 2						
	Type: □ Addressable □ Directory □ Graphic □	N/A Location:					
	7.3 Annunciator 3 Local Remote						
		N/A Location:					
	Type. Triangle Theorems Triangle T	TVII Location.					
8.	. ALARM NOTIFICATION DEVICES AND CIRCUITS						
	8.1 Emergency Voice Alarm Service						
		fumber of multiple voice alarm channels:					
	Number of speakers: N	Number of speaker zones:					
	8.2 Telephone Jacks						
	102.17 (100.07)	Tumber of telephone handsets stored on site:					
	Type of telephone system installed: Electrically power						
	9.2 Nanyaiga Audibla System						
	8.3 Nonvoice Audible System Characteristics of notification device circuits connected to the	nie evetem (see NEPA 79 Table 6 5).					
Characteristics of notification device circuits connected to this system (see NFPA 72, Table 6.5):							
	Quantity: Style:	Class:					

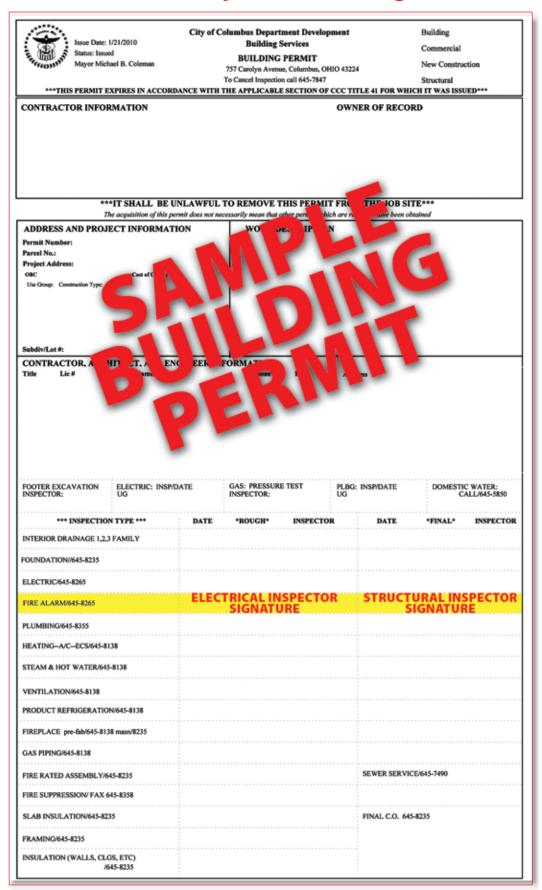
Appendix E — NFPA Record of Completion (page 4)

8.	ALARM NOTIFICATION DEVICES AND C	RCUITS (continued)	
	8.4 Types and Quantities of Nonvoice No	otification Appliances Installed	
	Bells: With visual device:	Horns:	With visual device:
	Chimes: With visual device:	Bells:	With visual device:
	Visual devices without audible devices:		
-			
9.	EMERGENCY CONTROL FUNCTIONS A	174 TVP TVP TXT 1.70 TTP TTP 1	alza aantral
	☐ Hold-open door releasing devices☐ Door unlocking	☐ Elevator recall	Other
retor	\$1500	a Elevator recan	a omer
10.	SYSTEM POWER SUPPLY		
	10.1 Primary Power		
	Nominal voltage	·	
	Overcurrent protection: Type	CONTRACTOR	
	Location (of primary supply panelboard):		
	Disconnecting means location:		
	10.2 Secondary Power		
	Location:	2 20 0 7 0 E ADCAUL	500 A 1 (1 (1 (1 (1 (1 (1 (1 (1 (1
	Number of standby batteries:		
	Location of emergency generator:		
	Location of fuel storage:		
	Calculated capacity of secondary power to d		
	In standby mode:	In alarm mode:	2
11.	RECORD OF SYSTEM INSTALLATION		
	Fill out after all installation is complete and branching, but before conducting operational	wiring has been checked for opens, s l acceptance tests.	horts, ground faults, and improper
	The system has been installed in accordance	e with the following NFPA standar	rds: (Note any or all that apply.)
	□ NFPA 72	$\hfill \square$ NFPA 70, National Electrical C	ode, Article 760
	☐ Manufacturer's published instructions	☐ Other (please specify):	
	System deviations from referenced NFPA s	tandards:	
	Signed:	Printed name:	Date:
	Organization:		1.2.00000
	Olganization.		I none,
12.	RECORD OF SYSTEM OPERATION		
	All operational features and functions of th	is system were tested by or in the p	presence of the signer shown below, on
	the date shown below, and were found to be NFPA 72	e operating property in accordance of □ NFPA 70, National Electrical	
	☐ Manufacturer's published instructions	☐ Other (please specify):	Code, Afficie 100
	□ Documentation in accordance with Inspe		.6.2.3) is attached
	Signed:	Printed name:	Data
	Organization:	11tle:	Phone:
© 20	007 National Fire Protection Association		NFPA 72 (p. 4 of 5)

Appendix E — NFPA Record of Completion (page 5)

	ontractor	NITTO A
This system as specified herei	in has been installed and tested according to all	NFPA standards cited herein.
Signed:	Printed name:	Date:
Organization:	††††††††††† <u>†Title:</u>	Phone:
13.2 System Service Contra	actor	
This system as specified herei	in has been installed and tested according to all	NFPA standards cited herein.
Signed:	Printed name:	Date:
Organization:	<u> </u>	Phone:
13.3 Central Station		
This system as specified herei	in will be monitored according to all NFPA stan	dards cited herein.
Signed:	Printed name:	Date:
Organization:	<u> </u>	Phone:
	been installed and tested to its specifications a	
I accept this system as having Signed: Organization: 13.5 Authority Having Juris I have witnessed a satisfactor	g been installed and tested to its specifications a Printed name: Title:	Date: Phone:
I accept this system as having Signed: Organization: 13.5 Authority Having Juris I have witnessed a satisfactor in accordance with its approve standards cited herein.	Printed name: Title: sdiction y acceptance test of this system and find it to be	Phone: installed and operating properly one of operations, and with all NFPA

Appendix F — Sample Building Permit



Appendix G — Fire Protection Inspection Form

		-	FIRE	PROTECT	TON II	NSPEC	CTION REQ	UEST F	ORM	1		
	JC	BSITE	ADD	RESS								
ATE	REQUESTED				CON	NFIRM	ED DATE / TIN	1E				
l	FIRE ALARM W	/ITNESS	TEST									
	FIRE SUPPRES	SION H	ON HYDROSTATIC TEST									
	HVAC SYSTEM	TEST								nr Business Hours		
	ELECTRICAL S	ELECTRICAL SYSTEM TEST				☐ After Regular Busi						
	ROUGH SUPPR	ESSION	ı									
ı	FINAL SUPPRE	SSION										
	PERMIT NUMBE FIRE ALARM # FIRE SUPPRESSIO			cor	NTRACTOR CONTAC	R INFOR CT PERS		AUTHOR	c	ONTACT PHONE NUMBER		
	PERMIT NUMBE FIRE ALARM #			CO					c	ONTACT PHONE NUMBER		
F	PERMIT NUMBE FIRE ALARM #	n #	#	Fire Ala	contac				#	ONTACT PHONE NUMBER Electrical Systems		
F	PERMIT NUMBE FIRE ALARM # FIRE SUPPRESSIO Fire Alarm Devices Manual Pull Statio	n #	#	Fire Ala Devic Egress Contro	arm tes	CT PERS	HVAC Dev Smoke Control Sy	rices		Electrical Systems Generator test		
F	PERMIT NUMBE FIRE ALARM # FIRE SUPPRESSIO Fire Alarm Devices Manual Pull Statio A/V Units	m ions	#	Fire Ala Device Egress Contro Hold Open De	arm tes	CT PERS	HVAC Dev Smoke Control Sy Duct Detectors	rices		Electrical Systems Generator test Fire Pump Test		
F	PERMIT NUMBE FIRE ALARM # FIRE SUPPRESSIO Fire Alarm Devices Manual Pull Statio	m ions	#	Fire Ala Devic Egress Contro	arm es I Devices	CT PERS	HVAC Dev Smoke Control Sy	rices /stem		Electrical Systems Generator test Fire Pump Test Fire Suppression		
F	FIRE ALARM # FIRE SUPPRESSIO Fire Alarm Devices Manual Pull Statio A/V Units Smoke/Heat Dete	m ions	#	Fire Ala Device Egress Contro Hold Open De Fire Shutter Sprinkler Flow Sprinkler Tam	arm ses I Devices Vices	CT PERS	HVAC Dev Smoke Control Sy Duct Detectors Smoke Dampers	rices /stem		Electrical Systems Generator test Fire Pump Test		
F	FIRE ALARM # FIRE SUPPRESSIO Fire Alarr Devices Manual Pull Statio A/V Units Smoke/Heat Dete Elevator Recall	m ions	#	Fire Ala Device Egress Contro Hold Open De Fire Shutter Sprinkler Flow	arm ses I Devices Vices	CT PERS	HVAC Dev Smoke Control Sy Duct Detectors Smoke Dampers Hood/Suppression	rices rstem		Electrical Systems Generator test Fire Pump Test Fire Suppression Systems		
	Fire Alarr Devices Manual Pull Statio A/V Units Smoke/Heat Dete Elevator Recall Electric Strikes	m ions	#	Fire Ali Devic Egress Contro Hold Open De Fire Shutter Sprinkler Flow Sprinkler Tam Device	arm ses I Devices Vices	CT PERS	HVAC Dev Smoke Control Sy Duct Detectors Smoke Dampers Hood/Suppression FM 200	rices rstem		Electrical Systems Generator test Fire Pump Test Fire Suppression Systems Sprinkler Heads		
#	Fire Alarm Fire Alarm Pevices Manual Pull Statio A/V Units Smoke/Heat Dete Elevator Recall Electric Strikes Other:	m ens		Fire Ali Devic Egress Contro Hold Open De Fire Shutter Sprinkler Flow Sprinkler Tam Device	arm ees I Devices vices Alarm per	CT PERS	HVAC Dev Smoke Control Sy Duct Detectors Smoke Dampers Hood/Suppression FM 200 Stairway Pressuria	rices rstem		Electrical Systems Generator test Fire Pump Test Fire Suppression Systems Sprinkler Heads		
#	Fire Alarm Fire Alarm Pevices Manual Pull Statio A/V Units Smoke/Heat Dete Elevator Recall Electric Strikes Other:	m ens		Fire Ala Device Egress Contro Hold Open De Fire Shutter Sprinkler Flow Sprinkler Tam Device Other:	arm ees I Devices vices Alarm per	CT PERS	HVAC Dev Smoke Control Sy Duct Detectors Smoke Dampers Hood/Suppression FM 200 Stairway Pressuria	rices rstem n Alarm	#	Electrical Systems Generator test Fire Pump Test Fire Suppression Systems Sprinkler Heads		









C. Fire Dampers

Inspection can be scheduled by calling the HVAC inspection line at (614) 645-8138. This type of inspection is called a "Damper Test".

Inspectors needed:

- 1. HVAC
- 2. Fire Official

Testing procedures:

100% test of all device activation in accordance with the manufacturers specifications.

The items inspected will include but not be limited to:

- Inspection of installation as per the approved plans, manufacturers specifications, and all applicable codes.
- Verification of unit shutdown upon activation of the system.

D. Stairway Pressurization

To schedule inspection fax Fire Protection Request Form with a completed Record of Completion form to Inspection, (614) 645-8358.

Inspectors needed:

- 1. HVAC
- 2. Fire Official

Testing procedures:

100% test of all devices in accordance with the manufacturers specifications and the City of Columbus Building Code.

NOTE:

Inspector will indicate approval on the Building Permit under 'Fire Alarm - Rough (see Appendix 'E')